Eaton® GH109 EPDM Hose
and Connectors for SCR Systems

Eaton® Introduces GH109 Hose and Connectors to Support EPA Emission Reductions

New Eaton GH109 EPDM hose, tubes and connectors were developed for coolant use in SCR NOx reduction systems in 2010 Engines for Truck, and future Off-Highway Engine Platforms.

Eaton's new GH109 hose, tubes and connectors are key components for coolant circulation in Selective Catalytic Reduction (SCR) systems developed to meet EPA clean air requirements for on-highway vehicles in 2010 and beyond. SCR efficiently solves the problem of meeting EPA 2010 requirements for NOx emissions and particulate matter (pm). Maintaining optimum temperature in the system is critical and the GH109 hose is designed with a highly engineered EPDM tube to resist electrochemical degradation caused by heat and fluid properties.

The GH109 is extremely flexible making assemblies easy to install in tight routings and crimp qualified with market-tested, composite Rayconnect, Inc., (PA66) fittings for coolant use. SAE J2044 tube-form connections were also developed as a compliment connection, using highly corrosion-resistant tube coatings qualified up to 3,000 hours corrosion-resistant.

Features

- GH109, EPDM hose designed specifically for coolant applications in SCR systems for 2010 EPA approved Engines
- Qualified with composite Rayconnect, Inc., (PA66) fittings designed for coolant use
- Qualified with "formed" hose nipple design for one piece (no-braze) tube assemblies
- SAE J2044 end form designed and qualified with Galfan® extreme rust resistant tubing

Benefits

- Highly engineered EPDM tube compound offers excellent fluid resistance with coolants
- SAE J2044 Quick Connects offer assured sealing with a push-to-connect fitting design
- One piece tube assemblies save cost and eliminate leak opportunities
- Galfan® offers superior rust and chip resistance in over-the road heavy duty applications

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Eaton EPDM Hose and Connectors for SCR Systems

Part Number	Hose I.D. inch	Hose I.D. mm	Hose O.D. inch	Hose O.D. mm	Max. Oper. Pressure bar	Max. Oper. Pressure psi	Min. Burst Pressure bar	Min. Burst Pressure psi	Min.Bend Radius inch	Min.Bend Radius mm	Weight per/ft kg/m/lbs/ft
GH109-9mm	.35	9.0	.77	19.5	3.2	46	16	232	3.0	75	0.27 [.18]
GH109-11mm	.43	11.0	.85	21.60	4.8	70	24	348	3.0	75	0.30 [.20]

Composite Quick Connects for Use with Factory Crimp GH109

Nipple Part Number	Fitting Size	Connection End	Maximum Operating Pressure bar/ psi	Minimum Burst Pressure bar/ psi
EJ2910-0606	Straight,10 mm	SAE J2044	3.2/46	16/232
EJ2911-0606	90° Elbow,10 mm	SAE J2044	3.2/46	16/232
EJ4086-0606	90° Elbow,9.5 mm	SAE J2044	3.2/46	16/232
EJ2912-0808	Straight,11.8 mm	SAE J2044	4.8/70	24/348
EJ2913-0808	90° Elbow,11.8 mm	SAE J2044	4.8/70	24/348

GH109 EPDM Hose and Connectors designed and qualified to meet SCR Coolant System needs.

Markets

- 2010 Engine in Medium and Heavy Duty Vehicles
- Mobile-Off-Highway with Selective Catalytic Reduction SCR Systems

Crimp Connector Qualification

- Formed-tube Nipple Design
- Rayconnect Composite Fittings
- Galfan® Tubing
- Stainless Steel Socket for Size 6
- Brass Socket for Size 8

Test Requirements	Pass/Fail
Compression Set	Pass
Resistance to Coolant	Pass
Compressive Stress Relaxation	Pass
Adhesion Between Hose Layers	Pass
Cold Impact Test	Pass
Vacuum	Pass
Burst with Composite Crimp	Pass
Burst with Tube Fitting Crimp	Pass
Pressure - Temperature - Vibration Cycling	Pass
Elevated Temprature Burst Test	Pass

Eaton
Hydraulics Group USA
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel: 952-937-9800
Fax: 952-294-7722
www.eaton.com/hydraulics

Eaton
Hydraulics Group Europe
Route de la Longeraie 7
1110 Morges
Switzerland
Tel: +41 (0) 21 811 4600
Fax: +41 (0) 21 811 4601

Eaton
Hydraulics Group Asia Pacific
Unit 1
101-105 Keilor Park Drive
Tullamarine 3043
Victoria
Australia
Tel: +613 9319 8281

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An Eaton Green Solution